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17-AMRP-0018

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Addressees:

**STATEMENT OF DISPUTE REGARDING WASHINGTON STATE DEPARTMENT OF
ECOLOGY'S OPEN COMMENT ON THE SURVEILLANCE AND MAINTENANCE PLAN
FOR THE PLUTONIUM-URANIUM EXTRACTION (PUREX) FACILITY**

- References:
- (1) RL ltr. to A. K. Smith, Ecology, from R. J. Corey, "Initiation of Dispute Resolution Regarding Washington State Department of Ecology Response to PUREX Surveillance and Maintenance Plan Review Comment Record Number 8 (16-NWP-166) Pursuant to the Hanford Federal Facility Agreement and Consent Order Article VIII," 17-AMRP-0003, dtd. October 3, 2016.
 - (2) Ecology ltr. to D. S. Shoop, RL, from R. Skinnarland, "Re: Response to Letter 16-ESQ-0108, dated August 2, 2016, 'Response Letter to 16-NWP-106, Determination on Revision to DOE/RL-98-35, Revision 3, Surveillance and Maintenance Plan for the Plutonium-Uranium Extraction (PUREX) Facility,'" 16-NWP-166, dtd. September 26, 2016.
 - (3) RL ltr. to A. K. Smith, Ecology, from D. S. Shoop, "Response Letter to 16-NWP-106, Determination on Revision to DOE/RL-98-35, Revision 3, Surveillance and Maintenance Plan for the Plutonium-Uranium Extraction (PUREX) Facility," 16-ESQ-0108, dtd. August 2, 2016.

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- (4) Ecology ltr. to S. Charboneau, RL, from R. Skinnerland, "Re: Determination on Revision to DOE/RL-98-35, Rev. 3, Surveillance and Maintenance Plan for the Plutonium-Uranium Extraction (PUREX) Facility," 16-NWP-106, dtd. June 15, 2016.
- (5) RL ltr. to A. Smith, Ecology, from S. Charboneau, "Dangerous Waste Compliance Inspection on March 12, 2015, at the Plutonium Uranium Extraction (PUREX) Plant and Storage Tunnels, Resource Conservation and Recovery Act (RCRA) Site ID: WA7890008967, Nuclear Waste Program (NWP) Compliance Index No. 15.517," 16-ESQ-0058, dtd. May 3, 2016.
- (6) Ecology ltr. S. Charboneau, RL, and J. A. Ciucci, CHPRC, from E. Holbrook, "Re: Dangerous Waste Compliance Inspection on March 12, 2015, at the Hanford Site PUREX Plant and Storage Tunnels, Resource Conservation and Recovery Act (RCRA) Site ID: WA7890008967, Nuclear Waste Program (NWP) Compliance Index No. 15.517," 16-NWP-021, dtd. February 3, 2016.

This letter transmits the statement of dispute on the open comment on DOE/RL-98-35 to the Interagency Management Integration Team (IAMIT), in accordance with Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) Article VIII, Paragraph 30.A. The IAMIT has 21 days (no later than November 23, 2016,) to resolve the dispute, extend it at the IAMIT level, or choose to elevate it as detailed in Tri-Party Agreement Article VIII, Paragraph 20.D.

On February 3, 2016, the Washington State Department of Ecology (Ecology) issued a compliance report citing five areas of noncompliance and five areas of concern (Reference 6). On May 3, 2016, the U.S. Department of Energy Richland Operations Office (RL) responded to Ecology proposing a revision to DOE/RL-98-35, Surveillance and Maintenance Plan for the Plutonium-Uranium Extraction (PUREX) Facility, Revision 3, to address Ecology's compliance inspection comments (Reference 5). On June 15, 2016, Ecology issued its review comment record (RCR) for the proposed DOE/RL-98-35 revisions, stating that "Closure plans will be developed during the disposition phase.' Under Subpart G, DOE and CHPRC are required to maintain a closure plan in their operating record," (Reference 4). On August 2, 2016, RL responded to Ecology's letter and RCR, maintaining that "closure plans cannot be developed until final closure decisions are made...." (Reference 3). On September 26, 2016, Ecology initiated dispute (Reference 2). On October 3, 2016, RL initiated dispute in accordance with Tri-Party Agreement Article VIII (Reference 1).

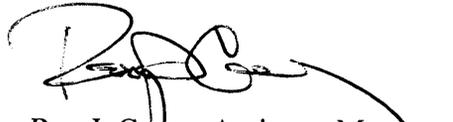
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If you have any questions, please contact me, or your staff may contact Al Farabee of my staff, on (509) 376-8089.

Sincerely,



Ray J. Corey, Assistant Manager
for the River and Plateau

AMRP:WCW

Attachment

cc w/attach:

D. B. Bartus, EPA

G. Bohnee, NPT

J. V. Borghese, CHPRC

R. Buck, Wanapum

R. E. Day, CHPRC

M. H. Doornbos, CHPRC

P. E. Eberlein, Ecology

S. Hudson, HAB

R. Jim, YN

R. A. Lobos, EPA

N. M. Menard, Ecology

K. Niles, ODOE

C. P. Noonan, MSA

R. E. Piippo, MSA

J. B. Price, Ecology

D. Rowland, YN

S. N. Schleif, Ecology

R. Skeen, CTUIR

E. R. Skinnarland, Ecology

M. J. Turner, MSA

Administrative Record (PUREX S&M Plan)

Environmental Portal

STATEMENT OF DISPUTE
OPEN COMMENT ON SURVEILLANCE AND MAINTENANCE PLAN
FOR THE PLUTONIUM-URANIUM EXTRACTION (PUREX) FACILITY
DOE/RL-98-35, REVISION 3

I. NATURE OF DISPUTE

This dispute arises from a series of communications between the Washington State Department of Ecology (Ecology) and the U.S. Department of Energy Richland Operations Office (DOE/RL) associated with an Ecology compliance inspection of the Hanford Site Plutonium-Uranium Extraction (PUREX) facility in March 2015 and a proposed revision to DOE/RL-98-35, Rev. 3, *Surveillance and Maintenance Plan for the Plutonium-Uranium Extraction (PUREX) Facility* (hereinafter called PUREX S&M Plan). In response to one of the Ecology concerns identified in the compliance inspection report related to Ecology's requirement that DOE/RL maintain a closure plan as part of the PUREX operating record, DOE/RL suggested a revision to the PUREX S&M Plan as the best way to document agreement on the regulatory requirements. Ecology disagreed with DOE/RL's proposed revisions to the PUREX S&M Plan related to this topic as reflected in Item 8 of the Review Comment Record (RCR), which captures the comment resolution process. Disagreement on disposition of RCR Item 8 resulted in Ecology's September 26, 2016 initiation of the dispute resolution process set forth in the *Hanford Federal Facility Agreement and Consent Order* (HFFACO) Action Plan Section 9. DOE/RL agreed that disposition of Item 8 should enter the dispute process and notified Ecology on October 3, 2016, formally initiating the dispute resolution process through the submission of letter 17-AMRP-0003. A chronology of the discussions, associated references, and relevant citations from the correspondence are presented in Table 1.

This Statement of Dispute explains the facts, law, and policy supporting the DOE/RL position.

Table 1. Chronology of Communications and Relevant Content/Citations

Date	Reference	Description	Relevant Content/Citations
2/3/16	16-NWP-021	Letter from Ecology to DOE/RL and CHPRC transmitting report from 3/12/15 compliance inspection of PUREX Plant and Storage Tunnels	<p>The inspection report from Ecology included the following statements in Concern 3 (pgs 44 and 45 of 45):</p> <p><i>It is unclear whether the PUREX Preclosure Work Plan, which is in accordance with TPA Sections 8 and 9, allows USDOE and CHPRC to not maintain a closure plan in accordance with 40 CFR Part 265, Subpart G. There is a difference between the obligation of USDOE and CHPRC to maintain a closure plan in the facility's operating record and the requirement to submit a closure plan during the Disposition Phase, in accordance with TPA Section 8. The TPA requirement to submit a final closure plan to Ecology does not preclude USDOE and CHPRC from the requirement to maintain a closure plan for the PUREX plant in the operating record.</i></p>
5/3/16		Letter from DOE/RL to Ecology responding to the 2/3/16 Inspection Report (16-NWP-021)	<p>The response letter from DOE/RL included the following statements (pg 2):</p> <p><i>DOE/RL believes that revision of the PUREX S&M Plan is the best way to document the Parties' agreement on how DOE/RL will address environmental requirements during the current S&M period until final closure decisions are made in conjunction with the PUREX canyon remedial action decision. This response includes a draft TPA Change Notice to revise the PUREX S&M Plan to address issues identified by Ecology in the PUREX compliance inspection report and to address Ecology comments on the draft Revision 4 of the S&M Plan (Ecology letter 15-NWP-178).</i></p> <p>Enclosure 1 of the letter included the following response to Concern 3 of the Ecology inspection report (pg 7 of 8):</p> <p><i>This concern is addressed in the proposed changes to the S&M Plan. Developing a closure plan to meet an operating record requirement has little value for a facility that will be closed in coordination with the remedial action plan.</i></p>

Table 1. Chronology of Communications and Relevant Content/Citations

Date	Reference	Description	Relevant Content/Citations
6/15/16	16-NWP-106	Letter from Ecology to DOE/RL transmitting comments from review of proposed revisions to the PUREX S&M Plan	<p>The enclosed Ecology review comment record Item No. 8 included the following under the "Comment or Question" column heading based on review of Table 6-1 of the S&M Plan revision (pg 2 of 2):</p> <p><i>"Closure plans will be developed during the disposition phase." Under Subpart G. U.S. 265 Subpart G Department of Energy and CH2M HILL Plateau Remediation Company are required to maintain a closure plan in their operating record.</i></p>
8/2/16	16-ESQ-0108	Letter from DOE/RL to Ecology responding to Ecology comments from review of proposed revisions to the PUREX S&M Plan	<p>The enclosed Ecology review comment record Item No. 8 included the following under the "U.S.D.O.E. Response" column heading (pg 2 of 2):</p> <p><i>A closure plan cannot be developed until final closure decisions are made in conjunction with the PUREX canyon CERCLA response action decision. Section 8 of the TPA Action Plan establishes how compliance will be managed until full RCRA and CERCLA closure can be completed. The S&M Plan is the instrument to describe the implementation of agreements under the TPA. The draft TPA Change Notice for the PUREX S&M Plan Section 1, lines 22 through 27, confirms the timing for development of a closure plan which would be maintained in the PUREX operating record.</i></p>
9/26/16	16-NWP-166	Letter from Ecology to DOE/RL responding to DOE/RL response to Item 8 on the Ecology review comment record for the proposed revisions to the PUREX S&M Plan	<p>The response letter from Ecology included the following statement (pg1):</p> <p><i>Based on USDOE-RL's response to comment number 8 in the enclosure, Ecology is initiating the dispute resolution process set forth in the Hanford Federal Facility Agreement and Consent Order, Action Plan-Section 9, -Document Review and Comment Process.</i></p> <p>The enclosed Ecology review comment record identified the status of Item No. 8 as "Open, Initiating Dispute Resolution" under the Open/Close" column heading and included the following under the "Ecology Response" column heading (pg 3 of 4):</p> <p><i>Ecology's position, as documented in the comment, is that for units subject to Permit Condition I.A, the Permittees must maintain a closure plan reflecting compliance with 40 CFR 265, Subpart G in their operating record as required under interim status facility standards, WAC 173-303-400(3).</i></p>

Table 1. Chronology of Communications and Relevant Content/Citations

Date	Reference	Description	Relevant Content/Citations
			<p><i>Also, Ecology would like to make the following clarifications in regards to DOE's response. Final closure decisions are made only through the Washington State dangerous waste permitting process – they are not made through the CERCLA process. Ecology does recognize that in some instances the TPA past practice process may be used to perform characterization necessary to support development of closure requirements, and to develop options from which the final closure requirements are selected through the closure plan approval process. However, it is Ecology's expectation that the revised permit application for the Rev. 9 Permit renewal include all applicable information required by WAC 173-303-806 for all dangerous waste management units, including closure plans.</i></p> <p><i>There are a limited number of dangerous waste management units for which closure plan submission dates have been set through TPA compliance schedule milestones. Currently this approach is only being used for the SST System. It is important to note that use of compliance schedules for submission of permit application elements does not mean that DOE is in compliance with permit application requirements during the compliance schedule period. There is some risk that a member of the public could challenge or appeal this approach, and directly enforce WAC 173-303-806 permit application requirements.</i></p> <p><i>In limited cases where implementation of closure activities are dependent upon or closely related to future CERCLA actions (e.g., dangerous waste management units with significant radiological hazards, or dangerous waste management units that are integral to canyon facilities), the schedule required to be included in the closure plan in the Permit may include an extended time allowed for closure to allow for coordination with future related CERCLA actions. This position is consistent with the March 10, 2015 Tier 1 management decision on the 221 T tank system within T Plant.</i></p>

Table 1. Chronology of Communications and Relevant Content/Citations

Date	Reference	Description	Relevant Content/Citations
10/3/16	17-AMRP-0003	Letter from DOE/RL to Ecology responding to Ecology position on Item 8 of the review comment record for the proposed revisions to the PUREX S&M Plan	<p>The response letter from DOE/RL included the following statement (pg 1):</p> <p><i>The U.S. Department of Ecology Richland Operations Office (RL) agrees that this item should enter the dispute process. As of the date of this letter, DOE will enter into the dispute resolution process and fulfill its responsibilities under Tri-Party Agreement Article VIII, "Resolution of Disputes."</i></p>

II. DOE/RL POSITION ON THE DISPUTE

DOE/RL maintains that RCR open Item 8 should be withdrawn by Ecology as submittal of a PUREX closure plan at this time is: (1) premature and untimely, (2) contradictory to prior agreements between the parties related to the PUREX facility, (3) not in accordance with the TPA, (4) inconsistent with Environmental Protection Agency (EPA) guidance and prior Ecology statements regarding closure plans and *Resource Conservation and Recovery Act of 1976 (RCRA)/Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA)* integration, and (5) a poor utilization of DOE/RL and Ecology resources without additional benefit to protection of human health and the environment. The PUREX S&M Plan satisfies the intent of 40 CFR 265, "Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities," Subpart G, "Closure and Post-Closure," and 40 CFR 265.197, "Closure and Post-Closure Care." Furthermore, DOE/RL's proposed revision to the PUREX S&M Plan is consistent with: (1) the HFFACO Action Plan (Section 8.0) and (2) the Hanford Facility sitewide RCRA Permit (WA78900008967, *Hanford Facility Resource Conservation and Recovery Act Permit, Dangerous Waste Portion for the Treatment, Storage, and Disposal of Dangerous Waste* [hereinafter called the Hanford Facility RCRA Permit], Section II.K, which addresses closure of the PUREX Facility, as DOE/RL and Ecology agreed in DOE/RL-95-78, *PUREX Facility Preclosure Work Plan* [hereinafter called the PUREX Preclosure Work Plan]).

Existing Regulatory Framework and Preclosure Work Plan

Section 8.0 of the HFFACO Action Plan established a process for coordinated efforts between DOE/RL and the lead regulatory agencies for decommissioning efforts under DOE/RL *Atomic Energy Act of 1954* authority, and applicable environmental regulations, such as CERCLA and RCRA, as they relate to disposition of facilities. Section 8.1.2 (Table 8-1) of the HFFACO states that final disposition for PUREX is, "*to be addressed using CERCLA remedial action coordinated with RCRA closure,*" and that completion schedules are, "*to be established with RI/FS Work Plans and RD/RA Work Plans in accordance with Action Plan Section 11.6 (M-85 milestones) and closure conditions/schedules established in the Hanford Facility Dangerous Waste Permit.*" Clearly, the HFFACO requires the RCRA/CERCLA integration for closure of facilities such as PUREX.

To facilitate the completion schedules, the HFFACO has provided PUREX related milestones (M-085 series) which consist of dates that range from 2017 to 2025 (See Section III, Table 2). It is noteworthy that these milestones have existed since the creation of the PUREX S&M Plan and PUREX Preclosure Work Plan and were based, in part, on then existing TPA language found in Section 8.8 (Preclosure Work Plan and RCRA Closure Plan). Section 8.8 provided the following path forward for facilities, like PUREX, that could not safely achieve RCRA closure during the surveillance and maintenance (S&M) phase of decommissioning:

- (1) Phased decommissioning often results in determining that, "completion of RCRA closure activities during the transition or S&M phases impracticable;"
- (2) Where "physical conditions and/or unknowns prevent timely completion of closure," DOE was required to submit a preclosure work plan for Ecology's review and approval;
- (3) In such cases, the S&M plan was to address RCRA compliance;

- (4) Ecology retained the right to “accelerate closure timing and/or initiate final closure in order to assure timely protection of human health and the environment;” and
- (5) Agreement negotiations during the transition and disposition phases were to establish Agreement milestones and target dates for preclosure and closure activities.

In short, Section 8.8 provided that the appropriate pathway forward for facilities, such as PUREX, was through the S&M and Preclosure Plans until the facility could be declared safe for later stages of decommissioning. Applicable timelines and schedules were to be driven through negotiations and HFFACO milestones.

The PUREX Facility Administrative Record (AR) includes the PUREX Preclosure Work Plan, which states on page iii, “*The closure process occurs in three distinct phases as part of the decommissioning process [i.e., transition, surveillance and maintenance, and disposition] (HFFACO, Section 8). Final closure will occur during the disposition phase. Phased decommissioning process is implemented because development of a complete closure plan during the transition phase is impractical and future land use determinations have not been identified.*” The PUREX Preclosure Work Plan further states that the “*closure plan for the PUREX Facility will be prepared during the disposition phase.*” Currently, the PUREX Facility is in its S&M phase of the decommissioning process, in accordance with the PUREX S&M Plan, as required by the HFFACO Action Plan (Section 8.0). The disposition phase follows the S&M phase. Submittal of a final closure plan is currently premature and untimely because the final closure plan is not required until the disposition phase of decommissioning.

Nearly twenty years ago on the topic PUREX Preclosure Work Plan, Ecology informed DOE/RL that “*the comments provided by Ecology on September 23, 1996, have been dispositioned and closed in an acceptable manner*” and that “[The] *Preclosure Work Plan meets the intent of Section 8 of the Hanford Federal Facility Agreement and Consent Order*” (Julian, 1997, “Re: Plutonium Uranium Extraction Facility (PUREX) Preclosure Work Plan, DOE/RL-95-78, Revision 0”). Ecology has recently proposed a different set of requirements for a PUREX closure plan, which contradicts the approach Ecology agreed to in the approved PUREX Preclosure Work Plan.

Section 9 of the HFFACO affirms that the PUREX Preclosure Work Plan is a Primary Document. The HFFACO identifies Primary Documents as those which are significant in advancing the Hanford Site cleanup mission. Most Primary Documents must be submitted by DOE to EPA or Ecology before enforceable milestone dates specified by the regulatory agencies. Once submitted, a Primary Document is subject to revision based on regulatory agency comments, and disagreement by DOE can result in a formal dispute resolution process. When issued as approved, a Primary Document becomes part of the Hanford Administrative Record and is incorporated by reference into the text of the HFFACO. This means that a violation by DOE of its obligations in the Primary Document is a violation of the HFFACO.

The approved PUREX Preclosure Work Plan was created pursuant to the then-current language of Section 8 of the HFFACO Action Plan. Once it was agreed to by DOE/RL and Ecology and issued as approved, it became a legally incorporated, permanent and enforceable part of the HFFACO, independent of any subsequent revision in Section 8. Over the past two decades,

DOE/RL has reasonably relied on agreements in the PUREX Preclosure Work Plan for decisions on prioritizing, planning and funding the remediation of nuclear facilities throughout the Hanford Site. The approved PUREX Preclosure Work Plan is binding on both DOE/RL and Ecology.

DOE/RL is aware of Ecology's general reserved right "to require closure in accordance with Federal and State hazardous waste law, and the Agreement...at any time" (HFFACO, Section 8.1). At the same time, Section 5.5 of the HFFACO states that "a procedure to coordinate the treatment, storage, and disposal (TSD) unit closure or permitting activity with the past-practice investigation and remediation activity is necessary to prevent overlap and duplication of work, thereby economically and efficiently addressing the contamination." Through Section 5.5, Ecology has committed to support "economical and efficient" coordination between RCRA closure actions and CERCLA remedial actions. In addition, EPA has longstanding guidance on efficiencies of coordinating and integrating CERCLA and RCRA.¹ Ecology's request for a Final Closure Plan is contrary to Section 5.5, contrary to the EPA guidance, and would result in additional and unnecessary work for DOE/RL and Ecology without additional benefit to human health and the environment. Because the PUREX Facility cannot be closed until DOE/RL has completed the appropriate Decommissioning steps (set forth above and discussed in the PUREX Preclosure Work Plan), submittal of a PUREX Final Closure Plan remains premature.

Closure with Respect to Permit Status

In the communications associated with RCR Item 8 for the proposed revision to the PUREX S&M Plan, Ecology states that final closure decisions are made "only through the Washington State dangerous waste permitting process." This position is not supported by WAC 173-303-400, "Dangerous Waste Regulations," "Interim Status Facility Standards,"² which allows for TSD unit closure under interim status. The HFFACO Action Plan Section 5.3 does not mandate conversion from interim status to final status to achieve closure. The Hanford Facility RCRA Permit, Part V, provides for the addition of TSD units to the permit while such units undergo final status closure. Part V does not directly apply to the closure of TSD units unless and until they are added to the Hanford Facility RCRA Permit in accordance with the HFFACO. Moreover, the Hanford Facility RCRA Permit indicates in the "Unit Status Table" on page Conditions.14 that the PUREX Plant will transition to final status under the HFFACO Action Plan (Section 8) and will not be incorporated into the Permit.

Notwithstanding the lack of direct final status permit applicability to the PUREX Facility, the current approach to the PUREX Facility is consistent with Hanford Facility RCRA Permit Condition II.K.7, which states that, "*results from other cleanup investigation activities shall be*

¹ EPA's 1996 guidance document, *Coordination between RCRA Corrective Action and Closure and CERCLA Site Activities*, states, "We encourage you to be creative and focus on the most efficient path to the desired environmental result as you craft strategies for coordination of cleanup requirements under RCRA and CERCLA and between federal and state/tribal cleanup programs," and, "There are several approaches program implementers can use to reduce inconsistency and duplication of effort when implementing RCRA closure requirements during CERCLA cleanups or RCRA corrective actions...For example, a clean-up plan for a CERCLA operable unit that physically encompasses a RCRA regulated unit could be structured to provide for concurrent compliance with CERCLA and the RCRA closure and post-closure requirements." (See: pages 3-4.)

² WAC 173-303-400(3)(c)(vi) lists standards for interim status closure, which do not require such closure under final status.

used whenever possible to supplement and/or replace TSD unit closure investigation activities” and further states that *“cleanup and closures conducted under any statutory authority, with oversight by either Ecology or EPA, which meet the equivalent of the technical requirements of Permit Conditions II.K.1 through II.K.4, may be considered as satisfying the requirements of this Permit.”* In addition, the HFFACO Section 8 process provides for PUREX Facility closure in conjunction with CERCLA authority and with regulatory oversight in a manner that will meet the technical requirements of Hanford Facility Permit Conditions II.K.1 through II.K.4. Under these Conditions, the Hanford Facility RCRA Permit acknowledges and allows for TSD closure to be achieved using other statutory authorities, including the administrative mechanism (i.e., “closure plan”).³ Thus, the HFFACO and the Hanford Facility RCRA Permit provide for the current PUREX closure schedule/process and Ecology’s proposed modifications are unnecessary.

Closure Requirements Conceptual Agreement Package

In March 2016, Ecology issued 16-NWP-047, “Nuclear Waste Program Guidance for Assessing Closure Requirements in the Draft Hanford Facility Dangerous Waste Permit, Revision 9 – WA7890008967, (Closure Requirements – Conceptual Agreement Package), November 2015,” to be used by Ecology in review of the draft Hanford Facility RCRA Permit (WA7890008967, Rev. 9). On page 8 of 16-NWP-047, Ecology suggests that resolution for TSD closure units located inside canyon facilities should occur through closure plan submittal and development of permit conditions on a “case-by-case basis.” This approach is inconsistent with Section 5.5 of the HFFACO Action Plan, which addresses coordination of TSD unit closure with past-practice investigation and remediation in a manner that prevents overlap and duplication of work, thereby economically and efficiently addressing the contamination. This approach would also be inconsistent with Section 8.0 of the HFFACO Action Plan, the Hanford Facility RCRA Permit, and Ecology’s responsiveness summary that acknowledges use of “documents developed under other cleanup authorities to administer the closure or post-closure process.”

In addition to the information identified in 16-NWP-047, a closure plan must also meet the requirements in WAC 173-303-610 to obtain certification that the closure plan is true, complete, and accurate when the plan is submitted to Ecology. However, the following items required by 16-NWP-047 and/or WAC 173-303-610 closure regulations have not yet been determined:

- Implementation of the closure plan by the effective date of the Permit
- Identification of the type of closure that will be conducted, either clean or landfill (WAC 173-303-610(2)(b))
- Inclusion of: a sampling and analysis plan (WAC 173-303-610(3)(a)(v)), closure performance standards, requirements, activities, a schedule of closure activities, and final cover design for units leaving waste in place

³ Ecology acknowledges and endorses administrative mechanisms other than closure plans for achieving TSD unit closure in the Permit Responsiveness Summary issued on March 28, 2000. For example, see language on page 48 of 65, which states in reference to closing TSD units, *“these certifications are required regardless of the administrative mechanism used to accomplish closure...”* and *“...when documents developed under other cleanup authorities are used to administer the closure or post-closure process the appropriate equivalent in these other documents may be used as the certification of completion of closure or post-closure care.”*

For the listed examples, it was apparent to the Tri-Parties that preparing a closure plan prior to the availability of sufficient information would be unreasonable and would result in an incomplete and inaccurate closure plan. The challenge to coordinate final disposition of the individual PUREX Facility dangerous waste management units within the remainder of the canyon structure, and recognition that the extent of radionuclide contamination are key information needed to prepare the CERCLA response action before this information was available was unreasonable. Therefore, the Tri-Parties recognized that the closure activities will have to be coordinated with the CERCLA response action activities. In order to document this process, Section 8.0 of the HFFACO Action Plan was developed. Until final closure decisions are made, in conjunction with the PUREX canyon CERCLA response action, it is inappropriate to establish closure plan details for the PUREX canyon TSD units.

III. SUPPORTING INFORMATION

PUREX Facility

PUREX was a processing facility located in the Hanford Site 200 East Area that was used to extract plutonium from irradiated fuel rods. Built in the early 1950s, the facility went into operation in 1956. It was the fifth and final processing facility or “canyon” built at Hanford and the most efficient because it produced significantly less liquid waste during processing than the other canyons on the Site. It is longer than three football fields, stands 64 feet above the ground, and extends another 40 feet below ground. Concrete walls up to 6 feet thick were used in the plant to shield workers from the radiation of the building. PUREX also contains more than 23 miles of piping.

From 1956 to 1972, and again from 1983 until 1988, PUREX processed about 75 percent of the plutonium produced at Hanford. The building has been vacant for nearly 20 years, but it remains highly contaminated. Several rail cars used to transport the irradiated fuel rods from the Hanford nuclear reactors to the processing canyons are temporarily buried inside a tunnel near PUREX as a result of becoming contaminated. As with the rest of the Hanford structures, PUREX is slated to be decontaminated and demolished with some of its debris removed.

Disposition Phases

The HFFACO Section 8.0 Facility Disposition Process defines the approach by which DOE, with involvement from the lead regulatory agencies, will take a facility from operational status to its end state condition (final disposition) through a decommissioning process. This decommissioning process is composed of three phases: transition, S&M, and disposition. The transition phase required the following key documents prior to moving into the next phase: a Project Management Plan, a Facility Transition End Point Criteria document, a Preclosure Work Plan, and a final S&M Plan. These documents, including the PUREX Facility Preclosure Work Plan, were submitted to Ecology prior to the transition of the PUREX facility into the S&M phase.

The PUREX facility S&M phase, is described in HFFACO Section 8.0, Table 8.1: *“The PUREX facility has been deactivated in accordance with PUREX/UO₃ Deactivation Project*

Management Plan (WHC-SP-1011D) and PUREX Deactivation End Point Criteria (WHC-SD-TPP-053). S&M performed in accordance with Surveillance and Maintenance Plan for the PUREX Facility (DOE/RL-98-35). Final disposition to be addressed using CERCLA remedial action coordinated with RCRA closure. Completion schedules to be established with RI/FS Work Plans and RD/RA Work Plans in accordance with Action Plan Section 11.6 (M-85 milestones) and closure conditions/schedules established in the Hanford Facility Dangerous Waste Permit.” The HFFACO is clear that the closure of PUREX requires the coordination of RCRA and CERCLA. This goal has been successfully accomplished in the current PUREX S&M Plan and PUREX Preclosure Work Plan and would not be further advanced through development of a final closure plan for PUREX.

40 CFR 265

40 CFR 265 (Subpart G), in general, and 40 CFR 265.197, for tank systems, require the preparation of a closure plan that will be implemented after an interim status TSD unit ceases operations managing hazardous (dangerous) waste. However, the HFFACO, as a RCRA consent order, recognized that not all RCRA requirements are appropriate for the cleanup of the Hanford Site. Inclusion of the PUREX Facility in Section 8.0 of the HFFACO demonstrates that the Tri-Parties agreed that a typical RCRA closure plan prepared under 40 CFR 265 would not be feasible until completion of the decommissioning process of the PUREX Facility, when the facility would be ready for final disposition. Instead, it was agreed by the Tri-Parties that a PUREX Facility Preclosure Work Plan would be prepared and issued until a coordinated CERCLA remedial action and RCRA TSD unit closure would take place. Neither the HFFACO (Section 8.0), nor 40 CFR 265, require the preparation of a RCRA closure plan until a facility is ready for final disposition. Because PUREX is not currently being prepared for final disposition, the preparation and submittal of a Final PUREX Facility Closure Plan is not timely.

Schedule and Milestones

Established TPA milestones are outlined in Table 2.

Table 2. Established TPA Milestones

Number	Milestone	Due Date
M-85-00 Lead Regulatory Agency: Dual	Complete response actions for the canyon facilities/associated past practice waste sites, other Tier 1 Central Plateau facilities not covered by existing milestones and Tier 2 Central Plateau facilities. This includes B Plant, PUREX, and REDOX canyons and associated past practice waste sites in 200-CB-1, 200-CP-1, and 200-CR-1 OUs. The milestone does not include U Plant or T Plant canyons.	TBD
M-085-80 Lead Regulatory Agency: Ecology	Submit Remedial Investigation/Feasibility Study Work Plan for 200-CP-1 to Ecology.	09/30/2020
M-085-80A Lead Regulatory Agency: Ecology	Submit to Ecology as a secondary document a data quality objectives report to assess the structural integrity of the PUREX storage tunnels 1 and 2.	09/30/2017
M-085-82 Lead Regulatory Agency: Ecology	Submit to Ecology for approval proposal(s) for expedited response action(s) for one or more of the Tier 1 and Tier 2 facilities in the PUREX Geographic Area listed in HFFACO Appendix J. A Remedial/Removal Action Work Plan, including schedule, shall be submitted to Ecology as a primary document 180 days after approval of the Action Memorandum or interim Record of Decision developed for the expedited response action, or an alternative period designated in the Action Memorandum or interim Record of Decision.	12/31/2017
M-085-84 Lead Regulatory Agency: Ecology	Initiate response actions for the PUREX Geographic Area in accordance with the schedule in the approved Remedial/Removal Action Work Plan developed under M-085-82.	09/30/2025

IV. HISTORY OF ATTEMPTED RESOLUTION

The parties have made no attempt at resolution.

V. RECOMMENDED RESOLUTION

DOE/RL maintains that open RCR Item 8 should be withdrawn by Ecology because the submittal of a closure plan is premature at this stage of the PUREX Facility disposition process. Pursuant to the HFFACO, DOE/RL will prepare an appropriate PUREX closure plan when the facility is ready for final disposition (i.e., upon completion of the decommissioning process).

VI. REFERENCES

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